

Early Wheat National Variety Trial - Narrogin

Living Farm

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KEY MESSAGES

Yield data from this trial has been quarantined due to heavy early grazing by kangaroos & non-wetting soil compromising emergence and early growth.

Season 2020 in the region started with rainfall events in February and March which provided some subsoil moisture, below average winter rains were followed by a drier than average spring & early finish favouring the early maturing varieties.

Grower decision on variety choice for 2021 should not purely be based on this data but include data from across the region and over a number of years.

AIM

The aim of the National Variety Trials (NVT) is to generate independent information for growers and industry about newly released varieties of field crops to the current commercial varieties grown in the area.

BACKGROUND

The NVT program has been designed to identify the highest yielding varieties, free from the constraints of nutrition and disease. As a result, the nutrition and crop protection packages applied to NVT trials are typically higher than may be applied by the average grower.

Management is the same for all plots with no differences in timing for crop protection or nutrition. All trials have 3 replicates of each variety and all plots are sown (and subsequently harvested) on the same day. Timing of sowing is dependent upon the season, but is typically done within an average district “best practice” window and located on a typical soil type for the area.

TRIAL DETAILS

Plot size & replication	10 m x 1.72 m x 3 replicates
Soil type	Sand
Paddock rotation:	2019 Lupins
Sowing date	24/4/20 dry sown & irrigated with equivalent 10mm rainfall for germination
Sowing rate	200 seed/m ²
Fertiliser	24/4/20: Urea 100 kg/ha, Macro Pro Extra 130 kg/ha 11/7/20 Flexi N 100 L/ha 21/7/20 Flexi N 100 L/ha
Herbicides, insecticides & fungicides	Knockdown & pre-emergents pre-seeding Broadleaf spray Grass spray 2 x Fungicide sprays 2 x Insecticide sprays Details of chemicals used and rates available at nvtonline.com.au
Growing season rainfall	246 mm (May-Oct)

Table 1: Rainfall (mm) Source BOM PPD Data

Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
0.2	42.5	24.8	3.4	51.8	55.2	34.6	47.2	49.2	8.4	46.0	0.0

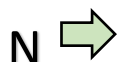
TREATMENTS

1	Catapult		13	Longsword
2	Coota		14	LPB15-2485
3	Cutlass		15	LRPB Kittyhawk
4	Denison		16	LRPB Nighthawk
5	DS Bennett		17	LRPB Trojan
6	DS Pascal		18	Magenta
7	EG Jet		19	RGT Accroc
8	EG Titanium		20	RGT Zanzibar
9	EGA Wedgetail		21	RockStar
10	Forrest-PSQ		22	Sheriff CL Plus
11	Illabo		23	Yitpi
12	Kinsei			

SOIL COMPOSITION

Table 2: Soil composition of the Narrogin NVT cereal trial site at 0-10 cm and 10-30 cm.

Depth	Texture 1 sand, 2 sandy loam, 3 loam, 4 loamy clay, 5 clay	Total Nitrogen mg/kg	Phosphorus mg/kg	P Test Type	Organic Carbon %	pH (water)	pH (CaCl ₂)	Conductivity (EC) dS/m	ESP %
0-10	1	8	36	Colwell I	0.5	5.6	4.8	0	1.45
10-30	1	3				5.6	4.7	0	2.99

FIELD PLAN

	Range 1	Range 2	Range 3	Range 4	Range 5	Range 6
Row 1	Forrest-PSQ	Denison	Yitpi	RGT Accroc	Catapult	Longsword
Row 2	Magenta	RockStar	Filler 1	LRPB Trojan	DS Bennett	Cutlass
Row 3	LRPB Nighthawk	EG Jet	Kinsei	LPB15-2485	Illabo	RGT Zanzibar
Row 4	Sheriff CL Plus	LRPB Kittyhawk	EG Titanium	DS Pascal	EGA Wedgetail	Coota
Row 5	LRPB Trojan	EGA Wedgetail	EG Jet	Cutlass	EG Titanium	Forrest-PSQ
Row 6	DS Pascal	RGT Zanzibar	Denison	LRPB Kittyhawk	Magenta	Kinsei
Row 7	Illabo	Filler 1	LRPB Nighthawk	Catapult	Yitpi	RockStar
Row 8	Longsword	RGT Accroc	DS Bennett	Coota	Sheriff CL Plus	LPB15-2485
Row 9	Kinsei	DS Bennett	RGT Zanzibar	Sheriff CL Plus	EG Jet	RGT Accroc
Row 10	Coota	EG Titanium	Longsword	RockStar	DS Pascal	LRPB Nighthawk
Row 11	Yitpi	LPB15-2485	EGA Wedgetail	Forrest-PSQ	Filler 1	LRPB Kittyhawk
Row 12	Cutlass	Catapult	Magenta	Illabo	Denison	LRPB Trojan

RESULTS

The results from this trial have been quarantined and will be available later from the quarantined trial report section at nvtonline.com.au but should not be used for any variety selection decisions.

VARIETY DESCRIPTIONS

For variety descriptions and information on the best choice of variety to grow this season see the 2021 WA Crop Sowing Guide at <https://grdc.com.au/2021-western-australian-crop-sowing-guide>

COMMENTS

The NVT Narrogin Early Wheat trial was sown on the 24th April into dry soil and germinated after being irrigated on 29th April with the equivalent of 10mm rainfall. Some staggered germination was observed due to non-wetting soil and initial growth was compromised due to grazing by kangaroos. The trial was fenced and received good nutrition but did not recover sufficiently for yields to be representative.

For results of all NVT trials for 2020 please visit the National Variety Trials online www.nvtonline.com.au

ACKNOWLEDGMENTS

Thanks to property owner Ashley Wiese for providing the site to Living Farm for the trial. Participating companies, GRDC and the NVT program coordinators.